

Claims

1. A packaging device for packaging a stack of sheet objects that have an attributable monetary value in a container, the device comprising:
5 means for determining value data relating to a sheet object to be stacked in the container; and
an RF reader/writer for writing said value data to an RFID device associated with the container.
- 10 2. A device according to claim 1, wherein the value data relates to the monetary value attributed to said sheet object and/or the position of said sheet object within said stack.
3. A device according to claim 1 or 2, comprising a sealing device for sealing
15 the container with an RFID device therein.
4. A packaging system for packaging a stack of sheet objects that have an attributable monetary value in a container, comprising
(i) a packaging device, comprising:
20 means for determining first value data relating to a sheet object to be stacked in the container; and
an RF reader/writer for writing said first value data to an RFID device,
(ii) at least one container configured to be filled with a stack of sheet objects by the packaging device,
25 (iii) an RFID device associated with the container.
5. A system according to claim 4, comprising first processing means having a first database for storing said first value data therein.
- 30 6. A system according to claim 5, comprising display means for displaying data stored in said first database to a user.

7. A system according to any one of claim 4 to 6, comprising:
an unpacking device for removing sheet objects from the container and
determining second value data relating to sheet objects removed from the
container.

5

8. A system according to claim 7, wherein the unpacking device comprises RF
means for reading the first value data stored on the RFID device.

10

9. A system according to claim 8, comprising second processing means having
a second database for storing the first value data read from the RFID device and
the second value data determined by the unpacking device.

15

10. A system according to claim 9, comprising an alarm, wherein the second
processing means is operable to compare said first value data to said second value
data and to trigger the alarm in the event that the first value data is not reconciled
with the second value data.

20

11. A system according to claim 9, wherein the second processing means is
operable to compare said first value data to said second value data and to control
said RF means to delete the first value data from the RFID device in the event
that the first value data is reconciled with the second value data.

25

12. A system according to claim 9, 10 or 11, comprising display means for
displaying the information stored in the other database to a user.

13. A system according to any one of claim 4 to 12, comprising:
an RF detector for detecting the RFID device, wherein the RF detector is
operable to write tracking information to the RFID device.

30

14. A system according to claim 13, wherein the RF detector is operable to
transmit said tracking information to the first processing means, and the first

processing means is operable to store said tracking information in the first database in association with the first value data.

15. A system according to claim 13, wherein the RF detector is operable to
5 transmit said tracking information to the second processing means, and the second processing means is operable to store said tracking information in the second database in association with the first value data.

16. A system according to claim 13, 14 or 15, wherein the tracking information
10 comprises the time and or the date when the RFID device is detected by the RF detector.

17. A system according to any one of claim 4 to 12, comprising an alarm and
an RF detector for detecting the RFID device, wherein the RF detector is operable
15 to trigger the alarm in response to detecting the RFID device.

18. A system according to any one of claim 4 to 17, wherein the packaging
device comprises a sealing device for sealing the container and the RFID device is
disposed so as to be sealed inside the container.

20. A system according to claim 18, comprising a closure member to be sealed
by the sealing device onto the container.

20. A system according to claim 19, wherein the RFID device is releasably
25 attached to the closure member.

21. A system according to any one of claims 4 to 20, wherein the first and/or
the second value data relate to the monetary value attributed to said sheet objects
and/or the number of sheet objects in said stack.

30. A method of transporting sheet objects that have an attributable monetary
value, the method comprising:

- 26 -

determining first value data relating to a stack of sheet objects packaged in a container; and

writing said first value data to an RFID device associated with the container.

5

23. A method according to claim 22, comprising sealing the RFID device inside the container.

24. A method according to claim 22 or 23, comprising storing said first value
10 data in a first database.

25. A method according to any one of claim 22 to 24, comprising:
unpacking the stack of sheet objects from the container;
determining second value data relating to the stack of sheet objects;
15 reading the first value data from the RFID device; and
storing said first value data and said second value data in a second database.

26. A method according to claim 25, comprising comparing the first value data with the second value data and triggering an alarm in the event that the first value
20 data is not reconciled with the second value data.

27. A method according to claim 25, comprising comparing the first value data with the second value data and deleting the first value data from the RFID device in the event that the first value data is reconciled with the second value data.
25

28. A method according to any one of claim 22 to 27, comprising:
sensing the RFID device within a predetermined locality; and
writing tracking information to the RFID device.

29. A method according to claim 28, comprising storing said tracking
30 information in the first database and/or the second database.

30. A method according to claim 28 or 29, wherein the tracking information comprises the time and/or the date at which the RFID device is sensed.
31. A method according to any one of claim 22 to 27, comprising:
5 sensing the RFID device within a predetermined locality; and
triggering an alarm.
32. A method according to any one of claims 22 to 31, wherein the first and/or the second value data relate to the monetary value attributed to said stack of sheet
10 objects and/or the number of sheet objects in said stack.
33. A packaging device for packaging a stack of sheet objects that have an attributable monetary value in a container, the device comprising:
means for determining value data relating to a sheet object to be stacked in
15 the container; and
an RF reader for reading identification information from an RFID device associated with the container.
34. A device according to claim 33, comprising a sealing device for sealing the
20 container with an RFID device therein.
35. A device according to claim 33 or 34, wherein the value data relates to the monetary value attributed to said sheet object and/or the position of said sheet object within said stack.
25
36. A packaging system for packaging a stack of sheet objects that have an attributable monetary value in a container, comprising
(i) a packaging device, comprising:
means for determining first value data relating to a sheet object to be
30 stacked in the container; and
an RF reader for reading identification information from an RFID device associated with a container,

- 28 -

(ii) at least one container configured to be filled with a stack of sheet objects by the packaging device,

(iii) an RFID device associated with the container,

(iv) first processing means having a first database for storing identification

5 information read from the RFID device in association with said first value data.

37. A system according to claim 36, comprising display means for displaying data stored in said first database to a user.

10 38. A system according to claim 36 or 37, comprising:

an unpacking device for removing sheet objects from the container and determining second value data relating to sheet objects removed from the container.

15 39. A system according to claim 38, wherein the unpacking device comprises RF means for reading the identification information stored on the RFID device.

40. A system according to claim 39, comprising second processing means having a second database for storing the identification information read from the
20 RFID device in association with the second value data determined by the unpacking device.

41. A system according to claim 40, comprising display means for displaying information stored in the second database to a user.

25

42. A system according to claim 40 or 41, wherein said second processing means is operable to send, across a network, a request signal to said first processing means, said request signal relating to the identification information read from the RFID device.

30

43. A system according to claim 42, wherein the first processing means is operable to transmit data stored in the first database in association with the

- 29 -

identification information, across a network, to the second processing means in response to receiving said request signal.

44. A system according to claim 42, wherein the second processing means is
5 operable to store data received from the first processing means in the second database in association with the identification information read from the RFID device.

45. A system according to any one of claim 42 to 44, wherein the request signal
10 and/or the data stored in the first database are transmitted over the internet.

46. A system according to any one of claim 36 to 45, comprising:
an RF detector for detecting the RFID device, wherein the RF detector is
operable to read the identification information stored on the RFID device and to
15 transmit tracking information to the first processing means, the first processing means being operable to store said tracking information in association with the identification information read by the RF detector in said first database.

47. A system according to claim 46, wherein the tracking information
20 comprises the time and or the date when the RFID device is detected by the RF detector.

48. A system according to any one of claim 36 to 45, comprising an alarm and
an RF detector for detecting the RFID device, wherein the RF detector is operable
25 to trigger the alarm in response to detecting the RFID device.

49. A system according to any one of claim 36 to 48, wherein the packaging
device comprises a sealing device for sealing the container, and the RFID device is
disposed so as to be sealed inside the container.

30

50. A system according to claim 49, comprising a closure member to be sealed
by the sealing device onto the container.

- 30 -

51. A system according to claim 50, wherein the RFID device is releasably attached to the closure member.

5 52. A system according to any one of claims 36 to 51, wherein the first and/or the second value data relate to the monetary value attributed to said sheet objects and/or the number of sheet objects in said stack

53. A method of transporting sheet objects that have an attributable monetary
10 value, the method comprising:
determining first value data relating to a stack of sheet objects packaged in a container;
reading identification information from an RFID device associated with the container;
15 storing said identification information in a first database in association with said first value data.

54. A method according to claim 53, comprising sealing the RFID device inside the container.

20

55. A method according to claim 53 or 54, comprising:
sensing the RFID device within a predetermined locality;
reading the identification information stored on the RFID device; and
storing tracking information on the first database in association with the
25 identification information.

56. A method according to claim 55, wherein the tracking information comprises the time and/or the date at which the RFID device is sensed.

30 57. A method according to claim 53 or 54, comprising:
sensing the RFID device within a predetermined locality; and
triggering an alarm.

58. A method according to any one of claim 53 to 57, comprising:
unpacking the stack of sheet objects from the container;
determining second value data relating to the stack of sheet objects;
5 reading the identification information from the RFID device;
retrieving first value data associated with the identification information
read from the RFID device from the first database;
storing said first value data and said second value data in a second database
in association with the identification information read from the RFID device.
- 10 59. A method according to claim 58, comprising:
comparing said first value data with said second value data; and
triggering an alarm in the event that the first value data is not reconciled
with the second value data.
- 15 60. A method according to claim 58, comprising:
comparing said first value data with said second value data; and
deleting, from the first and/or the second database, data associated with
the identification information read from the RFID device, in the event that the
20 first value data is reconciled with the second value data.
61. A method according to any one of claims 53 to 60, wherein the first and/or
the second value data relate to the monetary value attributed to said stack of sheet
objects and/or the number of sheet objects in said stack.
- 25 62. A container suitable for having a stack of sheet objects having an
attributable monetary value packaged therein and an RFID device associated with
the container.
- 30 63. A container according to claim 62, comprising a closure member sealing the
RFID device inside the container.

- 32 -

64. A container according to claim 62 or 63, wherein the RFID device is a read/write RFID tag.

65. A container according to claim 62 or 63, wherein the RFID device is a
5 read-only RFID tag.

66. A container according to any one of claims 62 to 65 containing a stack of sheet objects therein.